

UNITED STATES DISTRICT COURT
DISTRICT OF MINNESOTA
Civil No. 02-769 (DSD/SRN)

Miken Composites, L.L.C.,

Plaintiff,

v.

ORDER

Wilson Sporting Goods Co.,

Defendant.

Michael H. Streater, Esq. and Briggs and Morgan, 2200 IDS Center, 80 South Eighth Street, Minneapolis, MN 55402; Kurt J. Niederluecke, Esq. and Fredrikson & Byron, 200 South Sixth Street, Suite 4000, Minneapolis, MN 55402, counsel for plaintiff.

Douglas J. Williams, Esq., Jeffer Ali, Esq. and Merchant & Gould, 3200 IDS Center, 80 South Eighth Street, Minneapolis, MN 55402 and Jeffery A. Key, Suite 1115, 150 North Michigan Avenue, Chicago, IL 60601, counsel for defendant.

This matter is before the court upon plaintiff's motion for summary judgment of noninfringement. Based on a review of the file, record, and proceedings herein, plaintiff's motion for summary judgment is granted.

BACKGROUND

This is a patent infringement action between plaintiff Miken Composites, LLC ("Miken"), and defendant Wilson Sporting Goods Company ("Wilson"). Miken and Wilson are in the business of

manufacturing and selling high performance bats. Wilson owns United States Patent No. 5,415,398 (the '398 patent). The technology taught by the '398 patent is a high performance, double-walled bat designed to optimize impact response through the incorporation of an internal structural member. See '398 patent, col. 1, ll. 8-11. Miken brought this action seeking, among other things, a declaration that the following bat models do not infringe claims 1, 15 and 18 of the '398 patent: Viper, hhd, Intensit-E, Velocit-E, Ultra, Ultra II, Velocit-E II, Edge and M-Pulse.

Following a Markman hearing, the court construed the disputed terms and phrases of claims 1, 15 and 18 in an order dated July 25, 2004. On March 23, 2006, the United States Court of Appeals for the Federal Circuit issued a decision in which the Federal Circuit also construed claims 1, 15 and 18 of the '398 patent. See Wilson Sporting Goods Co. v. Hillerich & Bradsby Co., 442 F.3d 1322 (Fed. Cir. 2006). The Federal Circuit's claim construction in Hillerich & Bradsby informs and supplements this court's July 25 order.

In light of this court's claim construction order, Wilson abandoned its allegations in this action that the above Miken bat models infringe claim 15 of the '398 patent. As to claims 1 and 18, those claims read as follows:

1. A bat, comprising:

a hollow tubular bat frame having a circular cross-section; and an insert positioned within the frame, the insert having a circular cross-section, the insert having first and second

ends adjoining the tubular frame, the insert being separated from the tubular frame by a gap forming at least part of an annular shape along a central portion between said first and second ends, the frame elastically deflectable across the gap to operably engage the insert along a portion of the insert between the insert first and second ends.

18. A bat, comprising:

a hollow tubular bat frame having a small-diameter handle portion and a large-diameter impact portion having a circular cross-section with an inner and outer diameter; at least one insert having a substantially circular cross-section with an outer diameter less than the inner diameter of the frame impact portion, the insert being held within the impact portion; and the impact portion being inwardly elastically deflectable such to establish a tight interference fit between the insert and the impact portion.

Miken now argues that claim 18 is invalid by anticipation and moves for summary judgment of noninfringement as to claims 1 and 18 of the '398 patent. For the reasons that follow, the court concludes that claim 18 is valid, and that a summary judgment of noninfringement is warranted.

DISCUSSION

I. Summary Judgment Standard

Rule 56(c) of the Federal Rules of Civil Procedure provides that summary judgment is appropriate "if the pleadings, depositions, answers to interrogatories, and admissions on file, together with the affidavits, if any, show that there is no genuine

issue as to any material fact and that the moving party is entitled to a judgment as a matter of law." For the moving party to prevail, it must demonstrate that "there is no genuine issue as to any material fact and that the moving party is entitled to judgment as a matter of law." Celotex Corp. v. Catrett, 477 U.S. 317, 322 (1986) (quoting Fed. R. Civ. P. 56(c)). A fact is material only when its resolution affects the outcome of the case. Anderson v. Liberty Lobby, Inc., 477 U.S. 242, 248 (1986). A dispute is genuine if the evidence is such that it could cause a reasonable jury to return a verdict for either party. See id. at 252.

On a motion for summary judgment, all evidence and inferences are viewed in a light most favorable to the nonmoving party. See id. at 255. The nonmoving party, however, may not rest upon mere denials or allegations in the pleadings, but must set forth specific facts sufficient to raise a genuine issue for trial. See Celotex, 477 U.S. at 324. If a party cannot support each essential element of its claim, summary judgment must be granted because a complete failure of proof regarding an essential element necessarily renders all other facts immaterial. Id. at 322-23.

A. Validity of Claim 18

Miken argues that claim 18 of the '398 patent is invalid under 35 U.S.C. § 102(b) because it was anticipated by United States Patent No. 3,861,682 (the '682 patent). A patent, once issued, is presumed valid. See 35 U.S.C. § 282. A party challenging a patent

based on anticipation has the burden to prove invalidity by clear and convincing evidence. Am. Hoist & Derrick Co. v. Sowa & Sons, Inc., 725 F.2d 1350, 1358 (Fed. Cir. 1984). When the prior art reference used to attack the validity of a patent was considered by an examiner of the United States Patent and Trademark Office ("PTO") during the prosecution of the patent application, the party asserting invalidity has an "added burden of overcoming the deference that is due to a qualified government agency presumed to have properly done its job." Id. at 1359.

Anticipation is a question of fact that the court determines by comparing the properly construed claims to the prior art. In re Cruciferous Sprout Litig., 301 F.3d 1343, 1346 (Fed. Cir. 2002). "[I]nvalidity by anticipation requires that the four corners of a single, prior art document describe every element of the claimed invention, either expressly or inherently, such that a person of ordinary skill in the art could practice the invention without undue experimentation." Advanced Display Sys., Inc. v. Kent State Univ., 212 F.3d 1272, 1282 (Fed. Cir. 2000). A prior art reference can anticipate without expressly describing an element if that element is an inherent characteristic of the prior art, that is, it is "necessarily present" in the prior art and would be recognized by persons of ordinary skill. Cont'l Can Co. v. Monsanto Co., 948 F.2d 1264, 1268 (Fed. Cir. 1991). The court reads the claims of the prior art reference "in the context of the patent specification

in which they arise and in which the invention is described." Glaverbel Societe Anonyme v. Northlake Mktg. & Supply, Inc., 45 F.3d 1550, 1554 (Fed. Cir. 1995).

The only prior art reference Miken relies upon in support of its anticipation argument is the '682 patent, a prior art reference cited in the '398 patent. The objective of the '682 patent was to design a metallic bat capable of "mitigating the metallic sound and resound" that accompanies metallic bats and has "an acoustic sense of stability" more comparable to the batting sound of conventional wooden bats. See '682 patent, col. 1, ll. 12-28. To meet this objective, the '682 patent claims "two, spaced apart metallic-sound arresting ring members centrally disposed in the barrel portion of the ball bat" and a "metallic cylindrical repelling member disposed between [the] sound arresting ring members ... [and] being contiguous with [the] ring members and the inner periphery of the barrel portion of the bat." '682 patent col. 4, ll. 30-42. The '682 patent teaches that the ring members are "rigidly fixed" to the inner periphery of the metallic cylinder because when "sealingly fixed to the inner peripheral wall" the ring members function to "arrest the high-pitched [sic] metallic sound that otherwise would accompany each contact of the bat with the ball." Id. col. 3, ll. 24-30, 35-40. As illustrated in the

second embodiment, the repelling member is mounted inside the cylinder "in contacted relationship" with the ring members. Id. col. 4, ll. 13-18 and fig. 3.

Unlike the contiguous contact between the repelling member and the inner peripheral wall of the '682 patent, claim 18 of the '398 patent requires that the impact portion of the bat frame be "inwardly elastically deflectable such to establish a tight interference fit between the insert and the impact portion."¹ '398 patent, col. 8, ll. 3-5. Accordingly, claim 18 "requires space between the frame and the insert to allow for contact when the impact portion is elastically deflected." Hillerich & Bradsby Co., 442 F.3d at 1329. In other words, as construed by the Federal Circuit, claim 18 requires that a separation exist between the insert and the impact portion. See id.

Having compared the properly construed language of claim 18 with the '682 patent, the court finds that Miken has not established anticipation by clear and convincing evidence. Specifically, Miken has not proved that the '682 patent anticipates the limitation of claim 18 that the impact portion be "inwardly elastically deflectable such to establish a tight interference fit between the insert and the impact portion." Miken offers no

¹ An objective of the '398 patent was to improve upon prior art, such as the '682 patent, that disclosed tubular bats with inserts fixed relative to the frame. See '398 patent, col. 1, ll. 57-69.

evidence that the '682 patent discloses, expressly or inherently, elastically flexible walls capable of deflecting inwards to engage the insert. The court further finds that a separation, or space, between the metallic cylindrical repelling member insert of the '682 patent and the internal periphery of the bat frame is not a characteristic inherent in the '682 patent.

Further, Miken offers no persuasive argument as to why the court ought not accord deference to the PTO's decision to issue the '398 patent. Although the '398 patent was not amended to specifically avoid the '682 patent, the PTO examiner considered the '682 patent during the prosecution of the '398 patent and cited to the '682 patent in granting the '398 application. (See Streater Decl. Ex. 3, ex. C at 57.) For all these reasons, the court concludes that the '682 patent does not invalidate claim 18 of the '398 patent by anticipation. Therefore, the court rejects Miken's argument that claim 18 is invalid.

B. Noninfringement

The disputed claims of the '398 patent having been construed as a matter of law, the court now determines whether the accused bat models infringe the properly construed claims. See Markman v. Westview Instruments, Inc., 52 F.3d 967, 976 (Fed. Cir. 1995) (en banc), aff'd, 517 U.S. 370 (1996). Infringement, literal or under the doctrine of equivalents, is a question of fact. Panduit Corp. v. Hellermann Tyton Corp., 451 F.3d 819, 826 (Fed. Cir. 2006). A

claim is literally infringed if every limitation appears in the accused device. DeMarini Sports, Inc. v. Worth, Inc., 239 F.3d 1314, 1331 (Fed. Cir. 2001) (internal citations omitted). Accordingly, summary judgment of literal infringement is proper if no reasonable jury "could find that every limitation recited in the properly construed claim either is or is not found in the accused device." Goldenberg v. Cytogen, Inc., 373 F.3d 1158, 1163 (Fed. Cir. 2004) (internal citations omitted).

A claim is infringed under the doctrine of equivalents if the accused product contains each claim limitation or its equivalent. DeMarini Sports, Inc., 239 F.3d at 1331 (citing Warner-Jenkinson Co. v. Hilton Davis Chem. Co., 520 U.S. 17, 40 (1997)). The court applies the doctrine of equivalents to individual elements, not an invention as a whole, and must determine whether a substitute element substantially matches the "function, way, and result of the claimed element." Warner-Jenkinson Co., 520 U.S. at 29, 40. In other words, to be equivalent the disputed component of the accused device must perform "substantially the same function as the claimed limitation in substantially the same way to achieve substantially the same result." Ethicon Endo-Surgery, Inc. v. U.S. Surgical Corp., 149 F.3d 1309, 1315 (Fed. Cir. 1998). The doctrine of equivalents is limited, however, by the "all elements" rule and cannot be employed in a manner that vitiates an entire claim limitation. See id. at 1316, 1317 n. 1. Summary judgment under

the doctrine of equivalents is proper if "no reasonable jury could determine two elements to be equivalent." Goldenberg, 373 F.3d at 1164 (internal citations omitted).

1. Ultra, Ultra II, M-Pulse, Velocit-E II & Edge Bats

Miken moves for summary judgment of noninfringement as to the Ultra, Ultra II, M-Pulse, Velocit-E II and Edge bats ("the carbon bats") because they do not have an "insert" as required by claims 1 and 18.² The carbon bats are each manufactured by a successive layering process. An internal component is first fabricated by rolling alternate layers of preimpregnated carbon fiber reinforced/epoxy tape, polypropylene shrink tape and nylon shrink tape over a mandrel, curing the component at an elevated temperature, removing the external layers of shrink tape and then dipping the component into a release agent. (See Streater Decl. Ex. 4 at 4 and Ex. 6 at 3.) Each internal component is comprised of two layers of carbon fiber reinforced/epoxy tape and the placement and quantity of shrink tape layers vary slightly depending on the specific bat. Dry pre-woven fabrics are then tightly drawn over the internal component, and the entire assembly is infused with resin. (Id.)

² It is undisputed that the hhd, Viper, Velocit-E and Intensit-E bats have "inserts" within the meaning of claims 1 and 18 because they are composed of a structural member that is either hydraulically or manually pushed into a separately manufactured frame. (See Streater Decl. Ex. 4 at 4-5 and Ex. 6 at 3-4.)

Wilson does not dispute the manufacturing process or design of the carbon bats. Rather, Wilson argues that because it is possible to deconstruct the carbon bats to disclose separate structural members inside the frames, the carbon bats contain an "insert" that is "inserted" when the bat frame is tightly woven and manufactured around it. (See Doscotch Decl. Ex. D at figs. 1, 2.) The court disagrees. The term "insert" does not possess a particular meaning in the field of art encompassed by the '398 patent. See Hillerich & Bradsby, 442 F.3d at 1330. Given its ordinary and customary meaning, "insert" means "something inserted or intended for insertion." Id. Wilson provides no evidence to support a finding that the carbon bats contain anything inserted or intended for insertion. Comparing the properly construed claims to the accused devices, no reasonable jury could find that there is an insert in the Ultra, Ultra II, M-Pulse, Velocit-E II and Edge bats. Therefore, those bats do not literally infringe claims 1 or 18 of the '398 patent, and a summary judgment of no literal infringement is appropriate.

Wilson argues, in the alternative, that the carbon bats infringe the "insert" limitation of claims 1 and 18 under the doctrine of equivalents. Wilson points only to the opinion of its engineering expert, Douglas G. Guenther, that a load deflection test performed on each of the accused bats indicates that the

layers of the carbon bats are capable of independent movement.³ However, the results of the load deflection test did not form the basis for an opinion by Guenther as to equivalency, that is, whether the "insert" of the '398 patent substantially matches the "function, way and result" of the constituent layers contained within the carbon bats. Warner-Jenkinson Co., 520 U.S. at 40. Rather, Guenther opined that measuring independent movement through altered load deflection rates confirms the existence of a "gap," for purposes of claims 1 and 15, and the ability of the impact portion to be "inwardly elastically deflectable such to establish a tight interference fit," for purposes of claim 18. (Doscotch Decl. Ex. D at 22-23.) Further, the results of the load deflection test indicate at most the equivalency of the accused products as a whole. The court, however, is obligated to determine equivalency through an "objective inquiry on an element-by-element basis." Id. Wilson has provided no factual basis or expert testimony to support

³ The load deflection test compares the performance of (1) single-wall bats, (2) the accused products as designed and (3) the accused products with their internal components fixed in tight abutment with the frames through the use of epoxy. (See Doscotch Decl. Ex. D. at 10-14, 21-24.) According to Guenther, by bonding the constituent components together and inhibiting independent movement, the load deflection rates dramatically increase as a result of the structure being able to carry increased interlaminar shear during load. Interlaminar shear, in the baseball bat context, is the force exerted on a bat structure from application of a load "due to the outside radius being put into compression and the inside radius being put into tension." (See id. at 24-25, figs. 10-11.)

such an inquiry. Accordingly, no reasonable jury could find that the layers of the carbon bats are equivalent to the "insert" limitation of claims 1 and 18 of the '398 patent.

Moreover, to apply the doctrine of equivalents in this case would vitiate the "insert" limitation of claims 1 and 18 in contravention of the "all elements" rule. See Ethicon Endo-Surgery, 149 F.3d at 1316-17. The '398 patent teaches two separate structural members, the impact portion of a bat frame and an insert. See '398 patent at figs. 1-3. To hold that a bat comprised of successively wound constituent layers contains an "insert" would effectively read out the "insert limitation" of the '398 patent. For all these reasons, the court concludes that the carbon bats do not infringe claims 1 or 18 by equivalency, and summary judgment of noninfringement by equivalency is warranted.

The Ultra, Ultra II, Velocit-E II, Edge and M-Pulse bats do not infringe claims 1 or 18 of the '398 patent, literally or by equivalency, because they do not have an insert.⁴ Accordingly, the court grants plaintiff's motion for summary judgment of noninfringement as to those bats.

⁴ Because the carbon bats do not have an insert, the court does not address the parties' dispute as to whether those bats have a "gap," a frame that is "elastically deflectable across the gap to operably engage the insert," or an impact portion that is "inwardly elastically deflectable such to establish a tight interference fit between the insert and the impact portion." See '398 patent, col. 5, ll. 60-65, col. 8, ll. 3-5.

2. hhd, Viper, Velocit-E & Intensit-E Bats

As to claim 1, Miken moves for summary judgment of noninfringement as to the hhd, Viper, Velocit-E and Intensit-E bats on the basis that they do not contain (1) an insert that is "separated from the tubular frame by a gap forming at least part of an annular shape along a central portion between" the ends of the insert or (2) a frame that is "elastically deflectable across the gap to operably engage the insert." '398 patent, col. 5, ll. 60-65. As to claim 18, Miken argues that the hhd, Viper, Velocit-E and Intensit-E bats do not possess an impact portion that is "inwardly elastically deflectable such to establish a tight interference fit between the insert and the impact portion." '398 patent, col. 8, ll. 3-5.

The Intensit-E and Velocit-E bats consist of a bat frame and an insert that, in accordance with manufacturing specifications, has an outer diameter of between 2.004" to 2.008" and is hydraulically forced into a frame that has an internal diameter equal to or less than 2.000". (Streater Decl. Ex. 4 at 4-5.) As a result of this manufacturing process, the Intensit-E and Velocit-E bats do not maintain any spatial separation between the external wall of the insert and the internal wall of the impact portion. (See id. at 9 and figs. 5.1-5.4.) Rather, the Intensit-E and

Velocit-E bats maintain a constant interference fit between their respective frames and inserts, which are in intimate contact with each other. (Id. at 9.)

The hhd and Viper bats consist of a bat frame and an insert that, in accordance with manufacturing specifications, has an outer diameter that measures 2.00" and is manually forced into a frame that has an internal diameter that also measures 2.00". (Id. at Ex. 6 at 4-5.) Due to manufacturing tolerances, the force needed to push the aluminum inserts into the frames varies by bat. (Id.) According to Miken's engineering expert, Dr. Keith T. Dennehy, microscopy images of the interface between the insert and the impact portion of the hhd and Viper bats suggest intimate contact. (See id. at 6, figs. 1.6-1.9.) The hhd and Viper bats are designed to ideally produce bats in which the insert is in direct contact with the interior of the impact portion of the frame. (Id. at 7.)

"Gap," for purposes of claims 1 and 18, means a separation that "may be localized so that a cross-section of the bat in the impact region need not possess circular symmetry."⁵ Hillerich & Bradsby Co., 442 F.3d at 1329. Neither claim 1 nor 18 requires that the gap be annular,⁶ and the gap "need not have even 'roughly'

⁵ Although the term "gap" does not appear in claim 18, the Federal Circuit found the requirement that a "gap" exist between the impact portion and the insert to be implicit in claim 18. Hillerich & Bradsby, 442 F.3d at 1328-29.

⁶ Annular means "of or relating to an area formed by two (continued...)

parallel sides" and could be characterized by "intersection of part of the cross-section between insert and frame." Id. at 1328. "In other words, claims 1 and 18 do not require concentricity of the circular insert and frame. Moreover, those claims do not foreclose some contact between the insert and frame." Id. In claim 1, the gap must form "at least part of an annular shape along a central portion" of the insert so that the frame is "inwardly deflectable across the gap to operably engage the insert." '398 patent, col. 5, ll. 60-65. In claim 18, the gap requires "space between the frame and the insert to allow for contact when the impact portion is elastically deflected" and contact between the frame and insert may occur before impact "at some point other than that at which impact occurs." Hillerich & Bradsby Co., 442 F.3d at 1329.

As to the Intensit-E and Velocit-E bats, there is no evidence of any spatial separation between the impact portion and insert. (See Streater Decl. Ex. 4 at figs. 5.3, 5.4.) Rather, the insert and impact portion of those bats are in continuous contact with each other. Accordingly, there is no "gap," and the frame of the Intensit-E and Velocit-E bats is not elastically deflectable across a "gap," as required by claim 1. Because there is no separation between the insert and impact portions of the Intensit-E and Velocit-E bats, the impact portion of those bats is also not

⁶(...continued)
concentric circular or curved regions." Hillerich & Bradsby, 442 F.3d at 1328 (internal citations omitted).

"inwardly elastically deflectable such to establish a tight interference fit" with the insert, as required by claim 18. To the contrary, the Intensit-E and Velocit-E bats are designed to maintain an interference fit between the insert and impact portion prior to being under load. (See id. at 9.) This interference fit is created when the insert is hydraulically forced into the frame, not when the impact portion is elastically deflected inward.

As to the hhd and Viper bats, microscopy images of those bats indicate separations along the interface of one wall, but not the other. (See Streater Decl. Ex. 6 at figs. 1.6-1.9.) According to Dennehy, the aluminum of the inserts flowed away from one interface and towards the interface along which the band saw was sectioning the bat, revealing spatial separations on one interface that measure at most 0.013" in the hhd bat and 0.009" in the Viper bat. (Id.) Those spatial separations are intermittent and discontinuous in nature. The court finds that such irregular and sporadic separations do not result in a "gap" so as to allow the frame to be "elastically deflectable across the gap to operably engage the insert," for purposes of claim 1. Further, the microscopy images establish intermittent and intimate contact throughout the interface between the impact portion and the inserts of the hhd and Viper bats. Because intermittent contact occurs throughout the interface between the frame and the insert, the court finds that there is not a space between the frame and the insert sufficient to

allow for contact to occur upon the deflection of the impact portion, for purposes of claim 18.

Wilson provides no evidence contrary to the above undisputed facts regarding the respective interfaces and contact that Miken has found between the inserts and frames of the Intensit-E, Velocit-E, hhd and Viper bats. Rather, based solely on the results of the load deflection test, Wilson contends that it has established independent movement between the respective inserts and impact portions, which is proof of the leaf-spring elastic impact response taught by the '398 patent. (See Doscotch Ex. D. at 10-14, 21-23.) Wilson argues that to prove infringement of the "gap" limitation it need only prove that the insert and impact portions of the bat frames are capable of independent movement. The court disagrees. The Federal Circuit did not construe the term "gap," for purposes of claims 1 and 18 to require independent movement of the insert and impact portion, but rather a "separation." See Hillerich & Bradsby, 422 F.3d at 1328-29. The load deflection test is not evidence of the existence of a separation or space between the insert and impact portions of any of the accused bats. Therefore, the load deflection test and corresponding opinion of Dr. Guenther do not provide a basis to find that the hhd, Viper, Intensit-E and Velocit-E bats contain a "gap," for purposes of claim 1, or a space sufficient to allow contact upon elastic deflection, for purposes of claim 18.

For all the foregoing reasons, having compared the properly construed claims to the Intensit-E, Velocit-E, hhd and Viper bats, the court determines that no reasonable jury could find that those bats literally infringe claims 1 or 18 of the '398 patent. Therefore, a summary judgment of noninfringement is also warranted as to those bats.

CONCLUSION

Accordingly, **IT IS HEREBY ORDERED** that plaintiff's motion for summary judgment of noninfringement [Docket No. 46] is granted.

LET JUDGMENT BE ENTERED ACCORDINGLY.

Dated: August 10, 2006

s/David S. Doty
David S. Doty, Judge
United States District Court